

REMARKS

Claims 174-200 are pending in this Application, with claims 174, 184-187, 190, and 198-200 being independent claims.

Request For Interview with Examiner in Accordance with MPEP § 713.01

The undersigned Applicants representative contacted the Examiner and respectfully requested an interview on March 9, 2004. The Examiner suggested Applicants' representative submit an Applicant Initiated Interview Request Form (PTOL-413A) to request the interview. Applicants' representative submitted the PTOL-413A on March 10, 2004, noting that the issues to be discussed included the rejections under 35 U.S.C. 112, 102 and 103, as well as the fact that the Office Action failed to address certain claim terms.

The Examiner contacted the undersigned by telephone and indicated that he was refusing to grant an interview in connection with this application because he didn't feel the interview would further prosecution of the application. The undersigned suggested that the Examiner grant the interview noting that if the Examiner were able to clarify where certain claim elements were shown in the references, then the Applicants would be able to more accurately respond to the Office Action. The Examiner then maintained his refusal to allow an interview stating he may have to do a new search if the presently cited references did not disclose all of the claim elements. Given the fact that the undersigned has not once interviewed this application during its pendency, the Examiner's refusal is difficult to understand, particularly because such an interview would likely dispose of many of the rejections raised in the Office Action with only nominal consideration and would further prosecution of the application.

In accordance with MPEP § 713.03, Applicants respectfully request that the Examiner contact the undersigned at the number on the signature page of this reply before issuing another Office Action.

The Claims are Supported by the Written Description

Claim 185 stands rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The Examiner suggests that the term "a pivoting mechanism" is not supported by the written description. The term "pivoting mechanism,"

however, appears throughout the specification. The Examiner's attention is directed to, for example, page 19, line 8 ("Pivoting mechanism 112 is disposed between angle bracket 116 and the interface device front wall. Pivoting mechanism 112 provides an additional degree of freedom for mock head 162..."), page 20, line 14 ("Pivoting mechanisms 112, 114 provide degrees of freedom that enable mock head to be pivoted or rotated into various desired or appropriate positions for simulation."). Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. 112, first paragraph, be withdrawn.

As an aside, Applicants believe that this rejection and response provide an excellent example of how an interview would have clarified outstanding issues and further prosecution.

The Claims Distinctly Claim the Invention

Claim 196 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Applicants have amended the claim to more clearly define the scope of the invention. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. 112, second paragraph, be withdrawn.

The Claims are Patentable over the Bailey Patent

Claims 174, 176-177, 182, 185-186, 190, 192-196 and 199 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,800,179 to Bailey ("the Bailey patent"). These rejections are traversed for the reasons below.

The Bailey patent discloses a minimally invasive medical procedure simulator. The device disclosed in the Bailey patent includes a housing (Fig. 2, 1) having an opening (Fig. 2, 9) in which an implement (Fig. 2, 2) can be inserted. The Bailey patent states that to simulate a "true minimally invasive surgical instrument, the implement 2 may be moved axially (or laterally) and rotationally relative to the housing." (Col. 5, ll. 27-29). ***The Bailey patent, however, provides no disclosure or suggestion whatsoever of any pivotable element, particularly a pivotable anatomical site.***

Independent Claim 174 and its dependent claims

Independent claim 174 recites “a mock anatomical site defining an orifice, the mock anatomical site being pivotably coupled to the housing, the orifice being configured to receive a peripheral device.” As noted above, the Bailey patent does not disclose or suggest a “mock anatomical site being pivotably coupled to the housing” as recited in claim 174. The device of the Bailey patent includes an orifice in a fixed wall of the housing of the device. For at least this reason, independent claim 174 is allowable over the Bailey patent. Based at least on their dependence upon independent claim 174, dependent claims 176-177 and 182 are also allowable.

Independent Claim 185

Independent claim 185 recites “a pivoting mechanism coupled to the housing and configured to pivot the mock anatomical site.” As noted above, the Bailey patent does not disclose or suggest any pivoting mechanism whatsoever. For at least this reason, independent claim 185 is allowable over the Bailey patent. Based at least on its dependence upon independent claim 185, dependent claim 186 is also allowable.

Independent Claim 186

Independent claim 186 recites “a first peripheral motion assembly, the first peripheral motion assembly being configured to engage a first nested instrument from the plurality of nested instruments, the first peripheral motion assembly being configured to pass a second nested instrument from the plurality of nested instruments; and a second peripheral motion assembly, the second peripheral motion assembly being configured to engage the second nested instrument after the second nested instrument has passed through the first peripheral motion assembly.”

The device disclosed in the Bailey patent has no such configuration. The Bailey patent is cited at Col. 5, lines 37-64 to support the position that the Bailey patent discloses portions of claim 186. The Office Action is completely silent with respect to a second peripheral motion assembly configured to engage a second nested instrument. The silence of the Office Action notwithstanding, the cited disclosure in the Bailey patent is completely silent with respect to a first peripheral motion assembly configured to engage a first nested instrument and a second peripheral motion assembly configured to engage a second nested instrument as recited in claim

186. At most, the cited disclosure in the Bailey patent addresses the structural configuration of the Bailey device, without any mention of any peripheral motion assembly that engages a nested instrument. For at least these reasons, independent claim 186 is allowable over the Bailey patent.

Independent Claim 190 and its dependent claims

Independent claim 190 recites “providing a pivotable mock anatomical site, the pivotable mock anatomical site being configured to receive a peripheral device.” As discussed above, the Bailey patent fails to disclose or suggest “a pivotable mock anatomical site.” For at least this reason, independent claim 190 is allowable over the Bailey patent. Based at least on their dependence upon independent claim 190, dependent claims 192-196 are also allowable.

Independent Claim 199

Independent claim 199 recites “receiving a peripheral device at a pivotable mock anatomical site, the pivotable mock anatomical site having an orifice.” As discussed above, the Bailey patent fails to disclose or suggest “a pivotable mock anatomical site.” For at least this reason, independent claim 199 is allowable over the Bailey patent.

The Claims are Patentable over the Bailey Patent and the Bailey Patent in View of the Tuason Patent

The Claims are patentable over the Bailey patent alone

Claims 175, 178-181, 183, 187-189, 191, 197, 198 and 200 were indicated as being rejected under 35 U.S.C. 103(a) as being unpatentable over the Bailey patent.

Independent Claims 187, 198 and 200 and dependent claims 188-189

Beyond the heading in paragraph 7 of the Office Action, the Office Action does not address independent claims 187, 198 and 200 and dependent claims 188-189 with respect to the rejection under 35 U.S.C. 103(a) based on the Bailey patent alone. The rejection of each of those claims is addressed below with respect to the rejection based on the Bailey patent and the Tuason patent. Claims 187-189, 198 and 200 are allowable for at least the reasons set forth below.

Dependent Claims 175, 178-181, 183, 191 and 197

Based at least on their dependence upon independent claim 174, which is allowable over the Bailey patent for the reasons discussed above, dependent claims 175, 178-181 and 183 are also allowable. Additionally, based at least on their dependence upon independent claim 190, which is allowable over the Bailey patent for the reasons discussed above, dependent claims 191 and 197 are also allowable.

The Claims are patentable over the Bailey patent in view of the Tuason patent

Claims 187-189, 198 and 200 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the Bailey patent in view of U.S. Patent No. 5,403,191 to Tuason (“the Tuason patent”). The Tuason patent discloses an endoscopic surgical simulator that includes a cavity into which medical instruments are introduced through “multiple pre-established apertures” in a panel positioned above the cavity. The instruments can contact various simulated organs that are positioned within the cavity. The panel is fixedly coupled to the frame of the simulator. The device includes resilient foam rubber plates that cover the apertures to simulate the insertion of the various medical instruments through skin, and includes foam rubber simulated organs.

Independent Claim 187 and its dependent claims

Independent claim 187 recites “a plurality of mock anatomical sites, the plurality of mock anatomical sites each being pivotably coupled to the housing, each mock anatomical sites from the plurality of mock anatomical sites being configured to receive a peripheral device.” The Bailey patent and the Tuason patent both fail to disclose or suggest a mock anatomical site “pivotably coupled to the housing” as recited in independent claim 187. For at least this reason, independent claim 187 is allowable over the cited references, either alone or in combination. Based at least on their dependence upon independent claim 187, dependent claims 188 and 189 are also allowable.

Independent Claim 198

Independent claim 198 recites “detecting via a sensor a manipulation, an insertion, and a removal of the first engaged peripheral device; and detecting via a sensor a manipulation, an insertion, and a removal of the second engaged peripheral device, the detection of the manipulation, the insertion, and the removal of the first engaged peripheral device and the detection of the manipulation, the insertion, and the removal of the second engaged peripheral device being used to simulate the exchange of medical instruments during a medical procedure.”

The simulator disclosed in the Bailey patent includes a sensor (Figs. 2, 3, item 10), which “provide[s] accurate sensing of the implement 2 relative to the housing 1.” (Col. 5, ll. 35-37). The sensor in the Bailey patent includes a force sensor (Fig. 5(a), 31), a movement sensor (Fig. 2, 17), and a penetration depth sensor (Fig. 7, 43).

Unlike the present invention as recited in claim 198, the Bailey patent fails to disclose or suggest detecting insertion and removal of the peripheral device. Likewise, the Tuason patent fails to disclose or suggest any such detection via a sensor as recited in independent claim 198. Additionally, unlike claim 198, which recites the simulation of “the exchange of medical instruments during a medical procedure,” neither the Bailey patent nor the Tuason patent disclose such a detection to simulate the exchange of medical instruments during a medical procedure. In fact, the Office Action, as well as the references themselves, is completely silent with respect to such a simulation. For at least these reasons, independent claim 198 is allowable over the cited references, either alone or in combination.

Independent Claim 200

Claim 200 recites “providing a resiliency-providing material disposed between the orifice and the sensing assembly; and providing a hollow member extending through the resiliency-providing material, the hollow member being configured to guide the peripheral device to the sensing assembly.” The Examiner states that the use of foam rubber simulated organs in the device of the Tuason patent “more properly simulate[s] the inserting of a peripheral into a human organ as taught by Tuason for a realistic feel when manipulating the organ objects with a peripheral during a training session.” It is unclear how the device disclosed in the Bailey patent would be combined with the foam rubber organs of the Tuason patent to meet the claim

recitations. Providing the foam rubber organs of the Tuason patent "between the orifice and the sensing assembly" of the device disclosed in the Bailey patent would eviscerate the purpose of the sensing assembly. Moreover, no disclosure or suggestion exists in either of the references of "a hollow member extending through the resiliency-providing material" as recited in independent claim 200. In fact, the Office Action is silent with respect to that element of the claim.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections, and that they be withdrawn. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.


Prompt and favorable consideration of this Amendment is respectfully requested.

Dated: June 2, 2004

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Respectfully submitted,
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